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ABSTRACT

A literature review examined the research concerning adult development and graduate education. An initial literature review indicated that little research had been done. Three critiques were developed concerning the literature in adult development: dispersion of adult research literature throughout various disciplines, concentration on adult behavior without emphasis on adult development, and lack of research data on adult development related to graduate education. A significant lack of an empirical developmental orientation for graduate students was found. Five basic areas of graduate education were explored: personal dynamics, crisis events, existential questions, dissertation meanings, and student-faculty relationships. Study of personal dynamccs has not, but should, focus on importance of graduate education as a time of personal growth and exploration. Crisis events--finances and personal problems--needed to be examined from the students' perspectives. Existential questions (spiritual transitions, existential crises, spiritual examination, search for answers to personal philosophical questions), important to some graduate students have not been explored. Examination of students' experiences of the dissertation process emerged as an area of additional investigation. Finally, the importance, but not the dynamics, of student-faculty relationships have been documented. A greater understanding of problems unique to learning situations which involve adults as teachers and students was indicated. (YLB)

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ADULT DEVELOPMENT AND THE EXPERIENCE OF GRADUATE EDUCATION

A REVIEW OF THE LITERATURE

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Forward

This literature search was presented to the Humanistic Psychology Institute, San Francisco, California.

The Humanistic Psychology Institute was founded by the Association for Humanistic Psychology in 1970. The mission of the Institute is twofold: to explore and nurture the growth of humanistic psychology and to develop and implement educational designs appropriate for adult students that emphasize learning achievement and enhance independent study. To these ends, the Institute trains scholars in the range of skills and methods which enables them to make contributions to the field of humanistic psychology. The Institute has developed graduate programs of study leading to three degrees--the Master of Arts in Psychology, the Doctor of Philosophy in Psychology and the Doctor of Philosophy in Human Sciences.

The Institute's approach draws on knowledge from psychology, science, education, religion, organization theory, human systems, government and other fields concerned with human experience and behavior.

The 150 students currently enrolled at the Humanistic Psychology Institute range in age from mid-20s to 60s, with an average age of 38. The majority of the Institute's students have previously earned a Master of Arts in Psychology or a closely related field, and have worked as professionals for several years before commencing advanced study. The students represent 28 of the 50 United States, plus five foreign

countries. The typical student is highly self-motivated and has chosen the Institute for several reasons: it offers the unique opportunity to develop an independent learning program; it allows students to develop and choose learning resources in their communities; and, in most cases, students can continue to pursue their professional career work.

The Institute has been granted the status of Candidate for Accreditation by the Western Association of Schools and Colleges. Candidate for Accreditation is a status of preliminary affiliation with the Commission, awarded for two years, following a specific procedure for institutional self-study and on-site visitation. Candidacy is subject to renewal and does not assure eventual accreditation. (Humanistic Psychology Institute Catalog Academic Year 1980/81, 325 Ninth Street, San Francisco, Ca. 94103.)

ADULT DEVELOPMENT AND THE EXPERIENCE OF GRADUATE EDUCATION A REVIEW OF THE LITERATURE

Introduction

The year 1974 saw the publication of Gail Sheehy's Passages, Predictable Crises of Adult Lives, which continues to be a best-seller. Sheehy's book outlined a developmental process in adulthood, a process which had previously received little consideration from the psychological profession or the public. The following year, Vice President Walter Mondale introduced into Congress the Lifetime Learning Act, which became part of the Higher Education Amendment of 1976 (PL 94-482). This bill recognized the growing phenomenon of adults returning to school for additional learning experiences.

Previous research has neglected the experiences of the adult graduate student. Historically, adult development and adult education have been stepchildren in the academic disciplines of education and psychology. Yet the concept of lifelong learning has been receiving more attention during the past 20 years than ever before. In order to expand and apply this concept of lifelong learning, we need to understand the interactions between adult development and the various levels of adult education, including graduate education.

This research reports the results of an extensive

literature search and review concerning the adult developmental experiences of doctoral students. First, I will give a review of the literature in adult development and graduate education. Second, I will present a report of the relevant literature concerning basic areas of graduate education. These include personal dynamics, crisis events, existential questions, dissertation meanings, and student-faculty relationships.

Review and Critique of the Literature

An initial literature search during the summer of 1978 revealed that research in adult development (Bradbury, 1975; Levinson, 1978) and in graduate education for adults (Katz and Hartnett, 1976) was not extensive. During the next two years, continuous literature review and library research became part of an exploratory research design. The purpose of this literature search was to discover any data which might pertain to the interaction of adult development experiences and graduate education. Exploration of the literature was directed toward two broad areas: (a) adult development and (b) graduate education, particularly PhD programs.

Overview.

In reviewing this literature I was principally

impressed by the wide diversity of reports concerning adult behavior and adult education. The search for information about adult development or adults in graduate schools felt like a search for the proverbial needle in a haystack. After two years of reviewing literature, I had read articles in more than 60 diverse journals. (Examples: American Journal of Sociology, Gerontologist, Gifted Child Quarterly, Journal of Higher Education, Journal of Personality and Social Psychology, and Vocational Guidance Quarterly.)

In addition to my personal research, two computer searches were conducted. The first search concentrated on adult development and graduate education. The broadest possible terms were used in an effort to locate any materials relevant to adult development and graduate education. My previous experience with the literature had already revealed the scarcity of information, so the computer search deliberately avoided a narrow or precise focus.

Three sources were searched. These were (a) ERIC Clearinghouse on Education, (b) Psychological Abstracts, and (c) Dissertation Abstracts. In searching ERIC, three terms were used. These were graduate studies, adult students, and adult development; the results of this computer

run were negative. No studies were reported. The second run combined the titles graduate students and adult students; three studies emerged. A final run, using the terms graduate studies and adult students, brought forth eight studies. In searching Psychological Abstracts, there were no results when graduate studies and adult students were used. However, the combination of adult development and graduate education revealed one study. None of the computer runs in Dissertation Abstracts produced results. A total of 12 studies was found and reviewed.

A second computer search focused on developmental research concerning graduate students. Prior to this, I had found a developmental assumption in the literature that graduate education was a time of prolonged adolescence for graduate students. However, I had been unable to locate any developmental studies of graduate students in my literature searching. Again, (a) ERIC Clearinghouse on Education, (b) Psychological Abstracts, and (c) Dissertation Abstracts were searched via computer. A wide range of terms was used for all three sources. The terms were adolescent development, adolescent behavior, adolescence, young adults, graduate education, graduate students, graduate study, doctoral students, doctoral degree, and

doctoral programs. The search sought any two terms which coincided. From this search, 24 studies were reported. These were reviewed. Although the computer picked up two terms for each of these studies, none of the studies related to development stages or developmental progressions for graduate students. The result of these searches was that I was unable to find a developmental theory of graduate education which had an empirical base.

Adult Development

Three critiques developed concerning the literature in adult development. First, the literature in adult development is scattered throughout various disciplines. Second, the various disciplines concentrate on adult behavior, without emphasizing adult development. Third, there is a lack of research data on adult development as it relates to adult graduate education.

The dispersion of adult research literature. To review the field of adult development, I examined Psychological Abstracts, Dissertation Abstracts, books and textbooks. In addition to the computer search, I reviewed the indexing in Psychological Abstracts from January, 1974, through June, 1979. The three following broad areas were investigated: (a) development, which included cognitive, perceptual, psychosocial and personality development; (b) professional

personnel and professional issues; and (c), educational psychology, which included (1) educational administration, personnel and training, (2) curricula, programs, and teaching methods, (3) academic learning and achievement, and (4) classroom dynamics, student adjustment and attitudes. Listed in the Psychological Abstract indices were academic achievement, adult, adult development, adult education, clinical psychology graduate training, education, graduate education, graduate psychology education, graduate students, graduate training, middle-aged, postgraduate education, psychology education and young adults.

Turner and Helms (1979) state that "Adult Psychology is a relatively new, emerging extension of developmental psychology. As a systematic study, it attempts to examine the physical, intellectual, social and personal characteristics of human beings during the adult years" (p. 2). I found Turner's and Helms's claim of systematic study in adult development to be premature; I did not find that adult development had a coherent scholarly organization. However, a beginning has been made in this direction with the publication of adult-development textbooks. Five of these textbooks were reviewed for this study: (1) W. Bradbury's (1975) The Adult Years; (2) Basic Processes in Adult Developmental Psychology, by M. F. Elias, P. K. Elias

and J. W. Elias (1977); (3) A. Knox's (1977) Adult Development and Learning; (4) Adult Development, by S. K. Whitbourne and C. S. Weinstock (1979), and (5) Psychological Development: A Life-Span Approach, by P. H. Mussen, J. J. Conger, J. Kagan and J. Geiwitz (1979).

The literature review revealed two primary reasons for the dispersion of the adult-development literature. First, there is no agreed theoretical or methodological positioning by adult-development researchers. Havighurst (1973) documents the fact that developmental work from the 1920s to the 1970s concentrated on childhood and adolescent growth and maturation. Work in adult development was centered around gerontological issues. Adulthood was neglected because it did not seem that much change occurred in the span from the twenties through the fifties. It was generally assumed that growth proceeded through adolescence and into young adulthood. Decline was felt to begin in one's late fifties or early sixties. In between was the long plateau of adult life (Bradbury, 1975).

Changes during infancy, childhood, adolescence, and old age are much more apparent than changes occurring during the adult years. The former are intrinsically linked to biological and psychological changes which can be measured (Havighurst, 1973). P. B. Baltes (1973) wrote

that "life-span developmental theory, despite many efforts, has not reached a level of maturity that permits succinct enunciation of its conceptual and empirical networks" (p. 366). This statement reflected the outcome of four important West Virginia University conferences on life-span development, which were held in 1969, 1971, 1972, and 1974. Attending were individuals from many disciplines and interests, as the psychological community had not found a distinct conceptual framework for adult development. Nor did this framework emerge during these conferences.

The second cause of the dispersion of adult development literature relates to the first, and concerns the concentration on adult behavior. Adult development is a new area in the developmental literature, but adult studies are not new in psychology. In fact, adults have been studied under every psychological topic. Though there has been much empirical human-behavior research with adult subjects, little of this research has been related to an adult-development framework or theory (Havighurst, 1973). The literature has been organized in non-developmental categories (e.g., perception, emotion, cognition, and learning). (Zimbardo and Ruch, 1975). Reese and Nesselroade (1977) state that researchers in developmental psychology have concentrated upon small segments of the life cycle such as

infancy and old age, or upon behavioral processes such as learning, memory, and intelligence. At present, they find most researchers reviewing one process in one small age segment. An example is self-concept in adolescence, as opposed to self-concept throughout the life cycle. This single-segment concentration was evident in the studies which were listed by the computer searches.

A major theoretical and methodological issue in adult development research has been whether to examine specific processes and behaviors or to examine experiences in order to construct a sequential, stage-related framework. Considering theory, the consensus from the West Virginia conferences was against a stage-specific theory (Nesselroade and Reese, 1973). Whitbourne and Weinstock (1979) reflect this view: "While the concept of adult life stages is an important departure from the static view of adulthood, it is our position that adult experiences are too varied and multifaceted to be classified into age-defined discrete categories. When and how changes come about during adult years cannot be predicted" (p. vi). Havighurst (1973) opposes this view, stating that it does not lead to any attempts to articulate a theory concerning adult development or change. Kogan (1973) writes that the

most important problem for life-span psychology concerns the development of adult stages. In contrast to the argument over behavioral focus vs. stage, sequential focus in the adult literature, child and adolescent psychology has generated a theoretical base which combines the two approaches. Long years of investigation have produced an integrated view of physical, emotional, cognitive, and psychological growth in stage and age-related sequences (Bee, 1978; Biehler, 1976; Mussen, Conger and Kagan, 1977). In order to achieve this coherency, child and adolescent psychology have focused on a visible, underlying dynamic, the physical and biological growth of the young human.

Methodologically, the prevalent assumption that little or no change and growth occurs during the adult years has forestalled the development of adult development research. Adult studies have been primarily concerned with specific behaviors within a mechanistic or organismic investigative framework (Looft, 1973). Nesselroade and Reese (1973) stress experimental approaches which are oriented toward measurement and cause-and-effect relationships. In contrast, Baltes (1973) suggests the utilization of phenomenological methods to explore individuals' concepts of life changes. He states that retrospective and prospective

methods of data collection be employed in addition to concurrent methods (p. 394).

Adult age-stage developmental theories. As the debate continues, progress is being made toward a sequential-stage development theory for adults. This work builds upon the seminal investigations of R. Havighurst (1956), C. Buhler (1968) and E. Erikson (1963). Their stage theories reflect the traditional American cultural view of life patterns.

In his book, The Three Boxes of Life, Richard Bolles (1978) outlines education-work-retirement as the sequence of life for the average American worker. Bolles is speaking of a cultural phenomenon which became a fixture in this society as a result of the Industrial Revolution. This cultural phenomenon covers the human life span and implies a developmental model centering upon occupational activity. From this perspective, education or training is seen as a part of occupational choice and as a prelude to occupation. Work is seen as the activity of adult life, and retirement beginning when work ends. Distinct sexual differences can be seen in this model. This pattern of development has traditionally typified men's lives, reflecting their position as the breadwinner in family

groups. Women were formerly less oriented by the culture toward a career outside the home; they entered the working world most often in order to supplement the husband's income.

The pattern of education-work-retirement is reflected in psychological and sociological research. Psychologists Havighurst (1956), Buhler (1968), Erikson (1963), Levinson (1978), and Gould (1978) and sociologist Lowenthal (1976) all describe a pattern of human development which contains the education-work-retirement sequence. These theories are all epigenetic models; that is, they depict a linear sequence in which each stage follows and (to the degree required by the individual) depends upon the completion of a previous stage. In such models, education precedes work, and work precedes retirement. Each of these stages rests on the foundation of the previous activity. These models are sequential-stage theories: education becomes preparation for work, and work becomes preparation for retirement.

Havighurst (1956) posits three major periods of adult development: early adulthood (18 to 30), the period of becoming established in an occupation and a home; middle adulthood (30 to 50), a time in which social and civic interests dominate (though periods within it may be devoted

to the reassessment of goals and planning for retirement); and late adulthood (55 and over), a period in which principal concerns revolve around retirement, culture, and religious values.

Buhler (1968) has advanced a theory of life stages which is based on the results of life-review interviews. These stages include a period in adolescence (15 to 25) of preparation for life goals and experimental self-determination. The next period (25 to 45) is devoted to reaching these goals. The attainment of these goals occurs between 45 and 65. After 65, there is reflection on whether or not the life goals have been achieved.

Erikson's (1963) model is a psychosocial construct. He posits an essential dilemma which must be resolved within each stage. In the fourth stage, school age (6 to 12), the challenge derives from the social demand that the child learn the fundamentals of technology. During this stage, Erikson asserts, the individual learns the skills he will need for his adult work. The issue thus becomes one of Industry versus Inferiority. In adolescence (13 to 18), the issue is Identity versus Identity Diffusion. The influence of peer groups and models of leadership during this phase become part of the resolution of personal

identity. This identity struggle involves a person's choice of adult work activity. In young adulthood, the issue of work choice is less significant, and the emphasis shifts towards Intimacy versus Isolation, cooperation or competition in work-involvement. Creativity in work is one of the functions of adulthood, in which the issue of Generativity versus Self-absorption becomes dominant. With mature age, Integrity versus Despair becomes the issue as one reflects upon whether life goals have been met (including those of occupational achievement). The latter may or may not happen upon retirement from adult work, but a gradual detachment from an orientation toward occupational goals accompanies the preparation for retirement. In Erikson's model, the thread of education-work-retirement can be seen running through stages four through eight.

Levinson's (1978) model is based on a study of life stages of forty middle-aged men. It begins with adolescence, where traditional psychological development models end. Levinson's model is not a total life view, but is primarily concerned with the years between 17 and 60. The twenties, as a period in the developmental sequence, are characterized by an early adult transition which includes

the choice of vocation and an adult mentor. Another transition occurs around 30, as one re-evaluates his occupational goal and decides whether to pursue the original work choice or to begin a new plan. The mid-life transition, around age 40, brings further transformations. Levinson compares these changes to the Jungian process of individuation and the passage from young adulthood to adulthood. Levinson sees this phase as one of external as well as an internal transition as it involves reflection upon occupational life goals and their attainment (external) in comparison to occupational life dreams and self-fulfillment (internal). Levinson further postulates a late adult transition. His overall model, which is based on men's developmental patterns, clearly underlines the education-work-retirement sequence.

The education-work-retirement sequence is less prominent in Gould's (1978) work. His primarily psychoanalytical approach stresses the importance of overcoming early childhood assumptions. He outlines four periods: From 16 to 22, the individual is preoccupied with leaving the parental world; from 22 to 28, roles and career definitions begin to take shape, and the person struggles to develop individual talents; from 28 to 34, one begins to open

toward the interior self (a woman deals with the thought of a career outside the home; a middle class male is just beginning his career climb; a male of lower socioeconomic status is finding himself at the peak of his work; from 35 to 45, the mid-life decade, work can be used to avoid confronting the issues of evil and death as well as being part of the transformative process. Gould (1978) states: "When we are young men, we work primarily out of necessity to get bigger, and to be part of something that is in itself meaningful. After working for twenty years, we can't work for those reasons predominantly and still stay mentally alive. We must do work that confirms our talents and expresses a psychodynamic theme close to the core of us" (p. 243). The work of changing childhood assumptions has come to an end by age 50. This allows for a life of inner-direction. Gould does not go on to consider old age and retirement.

Lowenthal's (1976) study of lower-middle-class and middle-middle-class urban dwellers focused upon women and men at four stages of life. The subjects were high school seniors, young newlyweds, middle-aged parents, and a group near retirement age. Lowenthal studied these groups in order to examine pretransition periods in the human life

span. She identified three functional subgroups: (a) family careers; (b) occupational careers; (c) leisure careers. Her study indicates that the premarital group begins to focus on work with the specific purpose of using their education to lead to occupational entry. This is true for both men and women, although women seek to provide supplemental income for the family. In the middle-aged group, men were in occupational patterns, evaluating their success or failure while beginning to plan for retirement. Except for a small number who developed careers, the women were more attached to their families than to work. For women, work remained secondary. For both men and women, retirement meant the cessation of career activity. The women's work at home continued.

Adult development related to graduate education. Only three studies were found which integrated adult development concepts with graduate education. These were: (a) C. LeFevre's The Mature Woman as Graduate Student (1972); (b) D. L. Hiestand's Changing Careers after Thirty-Five, New Horizons Through Professional and Graduate Study (1971); (c) W. Saunders's Toward a Theory of Adult Development, Conflicting World Views and Fieldwork Factors Favoring Development in a Graduate School of Social Sciences (1976).

LeFevre's (1972) study involved thirty-five women at the University of Chicago who were between the ages of 32 and 52. A questionnaire was combined with interviews in a cross-sectional study to determine changes in self-concept as individuals completed their master's and doctoral training. Although she was primarily concerned with self-concept, LeFevre was able to document the experience of doctoral studies for these women.

Hiestand (1971) presents fifteen case studies of men and women over 35 who made a career change necessitating additional graduate or professional training. The cases were grouped according to the students' motivations for returning to school. Hiestand (1971) found that the "major characteristic of our group of persons who set out in middle age to make significant transformations in the level and types of their skills through entering a professional or graduate school for an extended period of full-time or nearly full-time study is its diversity" (p. 100). As his participants were reluctant to discuss psychological motivations, such material was not included in his data.

Saunders's (1976) is the autobiographical case study of a former Roman Catholic priest. He examined his own

personal growth and concluded that adult development occurs when individuals have contact with world views dramatically different from previously held opinions.

Each of these studies investigated various aspects of adult behavior and adult graduate education. However, Saunders's autobiography was the only study which examined the experiences of adult development during participation in a graduate program.

Graduate Education

After researching the literature on adult development, I began to explore graduate education and adult education. Specifically, I was interested in areas where adult development intersected with graduate education. I found that there are differences between adult education and graduate education. Throughout the history of American education, adult education and graduate education have seldom been combined. Adult education has provided vocational training, remedial school work, and leisure-time activities through credit and non-credit courses. It was seen as an activity which was available to an adult throughout his/her lifetime and to which s/he could return whenever s/he wished. Adult education represents the concept of lifelong learning. Graduate education, on the other hand, was seen as preparatory to business or

Higher Education and Lives in Transition, fifty articles were outlined. Six of these were selected for additional study. In Counseling Adults for Life Transitions, seven studies were presented; of these, two were reviewed.

A critique of the graduate education literature. The problems apparent in the adult development literature were similar to the problems encountered surveying adult education, and graduate education. A great diversity and profusion of reports existed in each of these areas.

A review of the literature in graduate education (higher education) revealed that there is no generally accepted body of theory or methodology for studying graduate education (Dressel and Mayhew, 1974). Like adult development, graduate education study is an "emerging field concerned with a complex variety of phenomenon" (Dressel and Mayhew, 1974, p. 6). When graduate education is studied, the questions explored concerned professionalism, history, the system of education, administration, faculties, programs, the content of programs, and students. The information detailed for students includes origins, motivations, social background, quality, preparation and recruitment. An example of this research is Berelson's (1960) study, Graduate Education in the United States. Students have neither been studied nor considered within

a developmental framework. I was unable to find an empirical base concerning the developmental orientations of graduate students.

Katz and Hartnett (1976) describe the period of graduate education as a prolonged adolescence. They found little previous research literature relating to the personality characteristics or developmental tasks of graduate students. Reporting in this study, Lozoff (1976) discusses the theories of Erikson (1963) and the emerging information from Levinson and Gould about the developmental tasks of young adulthood. She reports graduate students' experiences concerning autonomy, identity, and intimacy, issues important in adolescence and young adulthood. In the same report, Halleck (1976) devotes one paragraph to older students. His emphasis is on middle-aged women. Katz and Hartnett's (1976) work is cited because it contains the only reference to developmental tasks found in the literature on graduate education. This reference is not based on empirical evidence; it is an assumption.

In contrast, adult education has considered developmental tasks in planning and implementing adult teaching (Knowles, 1974). The primary framework has

been Havighurst's (1956) model of developmental tasks in young adulthood (18 to 30), middle age (30 to 50), and late maturity (55 and over). His is basically an education-work-retirement life-cycle view. His stages are used to formulate appropriate age-related enrichment courses.

Developmental research and educational theories. The history of child development theory is connected with that of educational theory and research, but such a connection has not developed between adult development theory and educational theories. Child and adolescent development is viewed as a process of differentiation and maturation. It is intrinsically associated with measurable biological and physiological changes. The results of observations outline the stages and sequences of psychosocial, emotional, and cognitive development. This body of child-development research has greatly influenced teaching and learning in the United States.

Theories about adult development, cognitive processes, and learning are incomplete and speculative (Knowles, 1974). Reflecting the views of adult educators, Knowles (1974) insists that adult learning is qualitatively and quantitatively different from learning in childhood and adolescence.

In a review of the literature, Labouvie-Vief (1977) questions the application of child-development notions to the study of adult cognition. She states that there is evidence to indicate unique and progressive changes in adult cognition. These changes may be qualitative, not quantitative. Flavell (1970) believes that experiences are the major sources of cognitive change in adulthood. Such change is not linked to biological events, as in childhood. Experience forms the bases for implicit changes in beliefs, attitudes, judgments, and self-concepts. Flavell (1970) understands these as important cognitive changes. Knowles (1974) asserts that an adult is more than just a grown-up child. He cites four critical differences between adult learning characteristics and those of children:

1. The adult's self-concept moves from dependency to self-direction and autonomy.
2. The adult has an increasing resource for learning from accumulated experiences.
3. The adult is motivated by the developmental tasks of social roles.
4. The adult is concerned with immediate application of knowledge.

The consensus is that adults are not children. The concepts of adult graduate education cannot be based on the concepts of child education. Techniques and patterns of adult learning for graduate education require greater investigation. Because adult cognition is different from child cognition, adult learning theory must reflect these differences. Quality, content, time of learning, as well as teaching techniques and methods, will all interact to create an adult learning environment decisively different from that of childhood education. Adult educational theories must be related to adult development. Such an investigation will require different avenues of exploration than those pursued in child and adolescent research.

Seven studies. Direct evidence concerning adult development and graduate education was limited in quantity. In fact, the most significant implication to be drawn from the literature is the lack of direct evidence. Most of the direct evidence relating to graduate education is derived from questionnaires that had been submitted to large sample groups of faculty, students, and graduates. Generally, this research examined three areas: (a) general aspects of graduate education; (b) time durations of study; (c) financial support. In addition to the survey

of journal articles, dissertation abstracts, microfilm, microfiche, and books, a thorough review of seven studies was conducted in search of evidence. My intention was to find any corresponding information which related to research concerning adult development and graduate education, any hints or pieces of collaborating or differentiating information. The studies reviewed were (a) B. Berelson's (1960) Graduate Education in the United States, (b) A. Heiss's (1964) Berkeley Doctoral Students Appraise their Academic Programs, (c) A. Heiss's (1970) Challenges to Graduate Schools, (d) Katz and Hartnett's (1976) Scholars in the Making, (e) J. Harvey's (1972) The Student in Graduate School, (f) J. A. Creager's (1971) The American Graduate Student: A Normative Description, and (g) A. Tucker, D. Gottliev, and J. Pease's (1964) Factors Related to Attrition Among Doctoral Students.

Berelson (1960) conducted an extensive field study of graduate education from 1957 through 1959. His study is considered a classic. He used interviews and questionnaires in an in-depth, nationwide study of graduate education. He surveyed graduate school deans, graduate school faculty members, and recent degree recipients. There was no age breakdown for the recent degree recipients. In

studying students, he analyzed origins, social background, motivation, quality, recruitment, and financial support. Under the rubric of programs, he analyzed dissertations, the master's degree, postdoctoral work, foreign language requirements, final examinations, evaluation of graduate work, and duration of doctoral study. Developmental issues were not considered in his research with students.

In her study, Heiss (1964) issued a questionnaire to doctoral students of the University of California, Berkeley, who were in the biological sciences, the humanities, the physical sciences, professional schools, and the social sciences. She did selected follow-up interviews. She examined students' personal backgrounds, their academic backgrounds, the factors influencing their decision to pursue the doctorate and study at University of California, degree requirements, student-advisor relationships, student participation, the quality of their graduate experiences, and their attitudes towards the university. Although not developmentally oriented, her study generated findings about the tensions, anxieties and strains of the doctorate program. Heiss later verified these results in a larger survey (1970) which included ten universities across the country.

Katz and Hartnett (1976) researched student perspectives in graduate and professional education. They used extensive interviews and a questionnaire in contacting doctoral students at six graduate institutions between 1973 and 1975. They were interested in motivation, personal and social characteristics, environments for learning, the meaning of quality, cognitive development, research abilities, interpersonal relations, emotional problems, and the special problems of women and minority students. Their population was made up of individuals in their 20s and early 30s. Although brief mention was made of developmental issues in the book subtitled "The Development of Graduate and Professional Students" -- life span development was not a central topic. However, the research did illustrate the experiences of the students as they worked for their doctorates.

Harvey (1972) did an extensive review of the research literature concerning graduate students. In his summary, he cites the problems encountered by graduate students, including those which affect his relationships with society. Harvey mentioned lack of clarity between the role of a student and his/her position of adulthood and relationships with faculty members, and other students. He also

notes the problems of special groups and the difficulties that graduate students have with certain program requirements. His final comment recognizes the economic insecurities of future PhDs and the decline in research emphasis and funds which reduce their employment opportunities.

Creager (1971) did an extensive normative survey of graduate education, contacting 33,119 respondents at over 150 institutions. The results are tabulations of responses to a broad range of questions concerning graduate education. His is the most extensive normative survey of graduate education ever completed.

Tucker (1964) decided to examine attrition, in response to Berelson's (1960) study of students who succeeded in completing their PhDs. Tucker analyzed both successful and unsuccessful students through the use of a questionnaire. Twelve case histories were constructed from the information gathered. These give biographical information, but the case studies were not related to a developmental matrix.

Evaluation of the Literature in Five Areas of Graduate Experiences

In his critique of the literature, Harvey (1972) observes that "much of the literature on the conditions

of graduate student life is polemical, based more on opinion than documented evidence, and generally few substantive suggestions for appropriate change are offered" (p. 6). I found this to be true of the literature on graduate education and the literature on adult development. However, the literature search did produce indirect evidence in five areas related to adult developmental experiences of graduate education. In-depth, exploratory interviews with twelve individuals who had been participants in an external doctoral degree program in psychology and humanistic sciences at the Humanistic Psychology Institute revealed five areas which were significant to the participants in their graduate education. (Average age of these individuals at entrance to the program was 37. Average age at exit was 40.) These areas were personal dynamics, crisis events, existential questions, dissertation meanings and student-faculty relationships. Utilizing these five areas as topical points, I found it possible to use information in the literature to illuminate aspects of graduate education which appeared to have relevance to adult development. I found this information in the literature to be grouped in three data sources. The first source was composed of research articles or studies which contained personal experiences. The twelve case histories in Tucker's

(1964) study of attrition and the fifteen case histories in Hiestand's (1971) work are examples. The second was made up of large survey studies such as Heiss's (1964 1970) investigations. These yielded information about graduate education and graduate students. The third source was composed of descriptive articles by educators concerned with graduate education or with adult learning. These writers were expert observers in the fields of adult development and graduate education. Their opinions and views were additional sources of information.

Personal Dynamics

There have been a number of large survey studies in graduate education which have used questionnaires to obtain program and student information. Six such studies will be examined for evidence of the influence of personal dynamics in graduate education.

Packer (1969) was chairman of the steering committee for Graduate Education, the Study of Education at Stanford, Report to the University. Using statistics from a University of California, Berkeley, study of Stanford graduate students in 1967-1968, the report lists the reasons for graduate study in the social sciences. They were (1) intellectual pursuits, (2) acquiring scholarly competence

in the discipline, (3) becoming a researcher, (4) becoming a teacher in higher education, (5) personal and professional advancement. The report quotes a remark made by Dean West, of Princeton, in 1916: "The more the student is excited about and willing to work on noble human issues -- whether these be in the arts or in the sciences -- the more he is a human being" (Packer, 1969, p. 71).

Three motives were given for attending graduate school in Trow's (1975) report of the National Survey of Faculty and Student Opinion for the Carnegie Commission on Higher Education between 1968 and 1972. These were (1) to continue intellectual growth, (2) to study a particular field of interest, (3) to increase earning power.

Heiss (1964) listed a number of factors that influenced people's decisions to study for a doctorate. These were:

1. intellectual interests (51%);
2. the desire to be on a college or university faculty (24%);
3. the need for a degree for a position or promotion (24%);
4. the encouragement of others (7%);
5. prestige (7%);
6. the desire to be of service (7%);

7. an enjoyment of university life (5%);
8. a dislike for nonacademic work (5%);
9. family expectations (2%);
10. other unspecified factors (5%).

In Challenges to Graduate Schools, the report of a more widely-based study, Heiss (1970) stated that students considered leaving graduate school for the following reasons:

1. disillusionment with graduate education (44.4%);
2. having become tired of study (40.5%);
3. the stress of passing hurdles in their program (37.0%);
4. the faculty's lack of interest in students (26.0%);
5. lack of interest in the chosen field of study (25.2%);
6. financial problems (22.5%);
7. academic problems (16.0%);
8. poor relationships with advisors (13.8%);
9. uncertainties about the draft (12.2%);
10. family problems (12.2%);
11. health problems (6.3%);
12. poor relationships with sponsors (5.9%).

Creager (1971) conducted a normative study of graduate students. Surveying students' motivations for attending

graduate school, he recorded the following percentages of responses:

1.	To continue intellectual growth	Agree 96.9; Disagree 3.1
2.	To pursue an interest in field	Agree 81.6; Disagree 18.4
3.	To prepare for an academic career	Agree 81.6; Disagree 18.5
4.	To increase earning power	Agree 74.9; Disagree 25.1
5.	To serve mankind better	Agree 74.1; Disagree 25.8
6.	To satisfy job requirements	Agree 64.0; Disagree 35.9
7.	To contribute to one's ability to change society	Agree 61; Disagree 39.0
8.	To get a prestigious occupation	Agree 57.4; Disagree 42.6
9.	To get a teaching credential	Agree 41.6; Disagree 58.4
10.	To find oneself	Agree 29.8; Disagree 70.2
11.	To see if a field of study is congenial	Agree 20.9; Disagree 79.2

12.	To engage in political activity	Agree 12.5; Disagree 87.5
13.	To avoid the draft	Agree 9.7; Disagree 90.4.

Creager's research supports the possibility that enrollment in graduate school is motivated by occupational and job goals and by personal growth concerns.

That personal dynamics have not been explored can be seen in Harvey's (1972) review of the literature in The Student in Graduate School. He states that academic, intellectual, and practical (job obtainment and advancement) reasons motivate the graduate student. He does not explore these motives. However, in his summary he asserts that "more emphasis should be placed on graduate students as developing scholars on an individual basis" (Harvey, 1972, p. 63). Harvey's (1972) broad assessment of the literature on academic, intellectual, and practical motivation is correct. At the same time, a review of the findings suggests that there are dynamics which underly these motives. Students' concerns with questions of personal relevance and meaning need further exploration.

The opposite of a developmental orientation to graduate education is the assumption that graduate students are little more than robots or adolescents locked in a

developmental stage. The adolescent assumption is present in the graduate literature. Katz and Hartnett (1976) write of prolonged adolescence, but I could not find an empirical basis for this assumption. The power of these assumptions can be seen in the following quotation from the dedication to L. J. Bischof's (1969) Adult Psychology: "Dedicated to the brightest but lowest-paid form of modern slave labor: The Psychology Graduate Assistant, without whose efforts research would never get done." Barzun (1968) describes postdoctoral fellows as "young serfs." A similar attitude is in evidence in the title of a study of medical students, Boys in White (Becker, Geer, Hughes and Strauss, 1961).

In a number of essays and articles, educators have stressed the need for relevant and meaningful education. In Graduate Education in the 1970s, D. A. Trivett (1977) says that little attention has been paid to the experience of the graduate student. He believes that two motivational factors emerge from studies of graduate students. The first concerns developmental issues for students. The second factor is that of career motivation. He mentions that the professional who returns to graduate school in mid-life does so for personal satisfaction. It is possible that understanding the developmental effects of graduate

studies will suggest new directions and purposes for graduate education. In Improving Graduate Education, Glass and Glass (1968) state that students bring more than just their minds to the universities. They bring their interests, hopes, and fears. "Education in an atmosphere of increasing self-knowledge means an end to the false dichotomy between intellectual pursuits and other aspects of life" (Glass and Glass, 1968, p. 441).

J. Seeman (1973), examining On Supervising Student Research, concludes that research learning works well when the following three conditions are met: (a) the learning environment encourages creativity; (b) research learning is related to the development of personal goals and personal effectiveness; (c) personal growth in the direction of autonomy and professional maturity is encouraged. He suggests that effective teaching stimulates students to become more aware of their own curiosity and to respect the questions they are asking themselves. He suggests that teachers need to encourage students' awarenesses of experiences so that students will understand that knowledge is not abstract but an integral part of their processes and experiences.

Hofstadter and Hardy (1952) concur with Seeman. Education can be seen as an end in itself, or as a means to an

end, as a preparation for life or as an integral part of life. Hofstadter and Hardy state that "learning for its own sake, as a source of wisdom or a delight to the seeking mind, is thrown on the defensive--a position that inevitably colors its quality" (p. 165). They observe that "science has not gained its greatest triumphs through its empirical practice, but through its speculative imagination" (p. 191). "To obtain knowledge," they suggest, "we need to be moved by experience of difference into a new fashion of seeing" (p. 205).

In Client-Based Patterns for Reforming Graduate Education, Lane (1971) sees graduate education performing many functions, including furthering self-understanding and renewal, as well as providing information about social problems. Written while he was a doctoral candidate in public administration, Lane asserts that graduate education pays little attention to the characteristics, needs, and personal goals of the graduate student, on the false assumption that these issues are not important to graduate education. In Reform in Graduate Education, Mayhew (1972) calls for graduate education to better serve the growth of the student as a scholar, teacher, researcher, and human being. He continues this discussion in Reform in Graduate and Professional Education (1974), calling

attention to the field's greater need for understanding of graduate students' developmental issues.

The articles described above demonstrate that educators in higher education and graduate education recognize the need for understanding the developmental issues and the personal dynamics of education. Joining them in this view are those concerned with adult learning. Knox (1977), in Adult Development and Learning, writes that there is a wide range of reasons for an adult to continue learning. The primary reason is practical, to develop and use knowledge and skills. The second reason is to explore something that involves curiosity, controversy, and importance to the learner. Another reason is pleasure in both the content of the learning and the expertise which can be gained through it.

In Modern Practice of Education, Andragogy versus Pedagogy, Knowles (1974) describes learning for adults as an internal process of ego involvement which makes self-diagnosis and self-learning important. Morstain and Smart (1977) write that "an approach which categorizes individuals on a holistic assessment of motivation may be more reflective of the types of adult learners in a particular program or institute" (p. 676). Sharp and Sosdian (1978) say that

previous research into post-secondary education among adults identifies three basic reasons for returning to school. These are (a) a desire for personal rounding or development, (b) a desire to complete the degree, and (c) a desire for career-oriented development and advancement.

Crisis Events

Crisis events or difficult situations were factors for each of the twelve persons interviewed. They experienced problems in their personal lives and with their doctoral studies. In reviewing the literature, I discovered that such difficulties appeared endemic to graduate education. Two areas of concern emerged. These were finances and personal problems.

Finances

In Heiss's (1964) study, 45% of the respondents indicated that economic factors, including finances and educational costs, interfered with doctoral progress. The greatest single cause of strain for these students was financing their education. Twenty-two percent of the participants in Heiss's 1970 study mentioned financial problems as one of their reasons for leaving doctoral programs. Williams (1977) found similar problems in his study of married students; financial problems were listed by Wilson (1965) as factors affecting the length of doctoral

study. In a study of attrition and duration of study among Berkeley graduate students, Stark (1966) concluded that financial assistance was the pivotal factor in graduate degree completion. Braley (1960) cites lack of money as an influence in decisions made about graduate program withdrawal. Billingsley (1978) reports that personal and financial problems were obstacles encountered by doctoral students at Ohio State University. Wilson (1965) concluded that more financial aid would help in reducing doctoral completion time.

Harvey (1972) points up the discrepancy between Berelson's (1960) study and Whitaker's (1969) research. Berelson maintained that finances influenced the duration of doctoral studies. Whitaker, on the other hand, claimed that recent financial assistance programs to graduate students did not reduce the length of study time. Harvey (1972) concluded that "graduates are not nearly as destitute as many imagine" (p. 66). However, he recommends that greater consideration be given to financial needs.

For adults of all ages, financial responsibilities for home and family are trying. Schooling is indeed a luxury, realistically considered only after basic family and personal needs are met.

Personal Problems. In Heiss's (1964) study, 41% of the married doctoral students reported stress and tension in their family relationships. Time, money, and commitment to studies interfered with their family responsibilities. Williams (1977) found this to be true in his study of married graduate students, who experienced more pressures, more disagreements, and more worries than unmarried students. Doctoral studies appear to be hard on important personal relationships.

Challis (1976) examined the anxiety and worry of ten mature woman students. They felt overwhelmed by initial course work and doubted their ability to succeed and cope. They experienced conflict between their previously successful non-academic way of thinking and the thinking required in academic work. This finding coincides with LeFevre's (1972) study, in which conflict and pressure were evident after the first four months of study. The students faced such difficulties throughout the first year, until the comprehensives were completed. A critical turning point for these women was the evaluation of the question, "Is this worth it?" Billingsley (1978) cited personal problems as one of the chief obstacles of her participants. Heiss

(1970) stated that the question, "Is it worth it?" is considered by most PhD participants. She observed that program pressure generates self-doubt and that students fear failure. Forty percent of those considering dropping out of doctoral programs mentioned fatigue. Health and family problems were cited by 18.5%.

Harvey (1972) established that time lags in doctoral studies occur because of lack of program structure and appropriate guidance for students. Of the 70% of Wilson's (1965) subjects who advocated reducing time for the doctorate, 23% recommended reorganization of courses and curriculum as a means to that end. Heiss's (1970) study of students dissatisfied with their universities mentioned rigid requirements as one source of discontent. The other complaints concerned the size and impersonality of certain schools and a lack of intellectual interaction with faculty. Creager (1971) found that 42% of his PhD respondents had considered changing graduate schools. Baird (1969) stated that stress is lowest when academic requirements are unambiguous and uncompetitive, even when academic requirements are high. Competition and uncertainty always produce strain, with a significant disruptive effect on studies.

Harvey (1972) writes: "Students should be advised of time requirements upon entry, and counseling, assistance, and adequate financial support should be available to them. The high percentage of faculty and students agreeing that graduate schools lose some of their best students because they refuse to play the game is partially a condemnation of the hurdles placed in students' paths, and partially a condemnation of time requirements" (P. 66).

Recommendations. Crisis events will always be present for the graduate student, regardless of the educational setting. These problems occur throughout the entire range of adult needs and responsibilities. Recognition of the effects of problems on doctoral progress is essential. Additional investigation is needed to determine adequate and appropriate student support services. Personal difficulties cannot be ignored as issues separate from the educational process. They are not separate in graduate students' lives. Effects of such vicissitudes upon graduate education and scholarly progress requires further investigation.

Existential questions

I did not consider the existential concerns of graduate students when I began this research. Finding this was a surprise to me. Ten of the 12 individuals interviewed discussed existential issues, including spiritual transitions, existential crises, spiritual examination, and the search for answers to personal philosophical questions. This search was oriented toward a personal existential perspective, not toward a particular religious orientation.

There is little data in the literature concerning the existential concerns of graduate students. Only five studies were found which dealt with this issue. As a result of his work in creativity with Berkeley graduate students, Barron (1963) concludes that creativity involves a crisis in one's belief system. Such a crisis entails a re-examination of religious or philosphical orientations. The disorganization of a person's customary view of life makes possible a creative new integration. Such a person engages in a personally significant examination of what life and the universe are all about. This exploration leads to a new religious orientation or to a reaffirmed religious belief. Kohlberg and Kramer (1969) insist that autobiographies from St. Paul to Tolstoy illustrate that

the transition to adult maturity requires moral and ideological confrontation. J. Broughton (1977) believes that intellectual development beyond Piaget's fourth stage means the development of a personally relevant epistemological view of self and reality. He suggests that this development reflects the cognitive and affective components of a mature personality. These features include a broader orientation, larger reflection and an approach to intellectual functioning that differs qualitatively from Piaget's mode of formal operations.

Patch (1978) examines forty doctoral students in her study, An Investigation of the Dissertation Process as a Training in Will Power: Will Power's Relation to Spiritual Development and the Mutual Implications in the Education Process. She finds that there are four existential crises or problems which are inherent in the dissertation process. These are choice, commitment, confidence, and meaning. Will power is needed to confront and resolve each of these problems. The dissertation becomes training in will power. Through will power, spirituality is developed. Saunders's (1976) autobiography implies that doctoral studies offer growth opportunities by providing exposure to diverse viewpoints and orientations. This was true for Saunders. His former orientation had centered

upon his religious commitment as a Roman Catholic priest.

Recommendations. The influence of an existential search on the scholarly questioning and creative work of graduate students may be significant. This possibility has not been recognized or addressed by the research community. It may be that spirituality, religion, philosophy, existential orientations, and creativity are interrelated issues, imparting deep meaning and value to the scholarly endeavor.

Dissertation Meanings

Harvey (1972) gives an excellent overview of the survey research on dissertations, in which he discusses the value of dissertations, the worth of PhD research, the duration of research projects, the length of doctoral theses, and a summary of student-faculty reactions to dissertations.

Berelson (1960) found that faculty and students considered the dissertation the most important part of doctoral training. Reviewing the ABDs (all but dissertations), Barzun (1968) reported that some students had the intellectual capacity to do the work but lacked the financial, social, and emotional resources. Berelson (1960) reported that one-third of those who completed their doctorates felt that they received too little attention and help with their dissertations. Porter and Wolfle (1975) found the dissertation process to be satisfactory in

general to the academic community but lacking in training in research competency. Harvey (1972) also noted that students lacked confidence in their research skills. Seeman (1973) insists that research skill development is a major aspect of the professional growth of the PhD, and that this requirement is the source of much anxiety for students.

After analyzing Berelson (1960), Allen (1968), and Heiss (1964, 1970), Harvey (1972) concluded that most successful doctoral candidates and their faculty advisors see the dissertation process as good, enriching, and satisfying.

Recommendations. There are only a few descriptions in the literature of their personal experience with and meaning of the dissertation for the graduate student researcher. Saunders (1976) and Patch (1978) give insights into these areas. This lack of research indicates that additional dissertation studies warrant the consideration of the personal experience and meaning of the dissertation for the doctoral candidate.

Student-faculty relationships

The area of student-faculty relationships appears as a critical topic in much of the graduate education literature.

Faculty relations with students revolve around two roles, that of teacher and that of advisor or research sponsor (dissertation chairperson). Billingsley (1978) found that doctoral graduates felt course work requirements and interactions with faculty members had been the most important elements in their programs. Tucker (1964) found that doctoral students wanted more direct attention and supervision as they prepared their dissertations. They wanted more training for research and fewer hurdles in the path of their academic progress. They felt that faculty members were building empires rather than contributing creatively to their fields. The lowest faculty rating was in the category of "sensitivity to students' needs." Attrition rates were highest in those departments where the faculty was not available for spontaneous help and advisement. Tucker concluded that student-faculty relationships were important to the students' progress.

Mayhew (1972) stated that graduate students complain of poor teaching and poor advising. Faculty members are perceived being preoccupied with building empires in research and consulting. Braley (1960) discussed the experiences of three graduate dropouts. He cited dissatisfaction with the graduate program, including the course work and teaching as the primary causes of attrition. Heiss (1964)

found that students needed the personal interest of a member of the faculty. Wilson (1965) recommended better advising, counseling, and program planning for doctoral study time reduction. Heiss (1964) wrote: "The quality and character of the relationship between the doctoral student and his major professor is unequivocally the most sensitive and crucial element in the doctoral experience for it not only influences the graduate student's scholarly development but also has far-reaching after-effects" (p. 31).

Three areas stand out in the relations between graduate students and faculty members. These are (a) students' needs, (b) developmental dilemmas, and (c) learning styles.

Student needs. What types of assistance do students appear to need? Herald (1968) concluded that students need help in research and study, report writing and publication, and proposal writing. In the areas of research and study, she recommended that faculty members (a) suggest and approve topics, (b) help with outlines, (c) teach data processing techniques, and (d) assist with interpreting findings. In assisting students to do report writing, she recommended that faculty (a) revise outlines, (b) revise rough drafts, and (c) help students outline reports. In aiding students with publication, she recommended (a) helping students

revise rough drafts, (b) suggesting outlets for publishing, (c) revising outlines, and (d) contacting outlets. For grant writing, she recommended helping students outline proposals. She viewed the faculty's role as one of support and assistance.

Clark, Hartnett, and Baird (1976) formulated six key questions about the learning environment: (a) Is undue tension generated?; (b) Do students feel exploited?; (c) Is there mutual respect and concern between faculty and students?; (d) Do students support each other in meeting academic demands?; (e) Do students support one another in their personal lives?; (f) What is the level of competition? Positive expressions of faculty commitment include accessibility to students, help with financial aid, concern for professional development, guidance in course selection, a willingness to go out of one's way for students, an interest in students' welfare, and help with job placement. Commitment to teaching is important. Heiss (1964) found that students wanted constructive counseling, supportive collegiality, and effective tutoring. They wanted advisors to understand and explain the degree procedures, and to be personally aware of students' needs. LeFevre (1972) felt that faculty guidance was especially crucial during the transition from course work to independent research. In

her view, there ought to be student-faculty contact during the entire dissertation process. This she thought would aid in reducing dropout rates.

Stewart (1969) wrote that the relationship between student and advisor or chairperson is the main determinant of student success or failure. He found that students believed that their advisors or chairpersons were accessible, strong, sensible, personable, professional, helpful, active, intelligent, and informed. Inaccessibility was the most mentioned negative attitude. When programs are tailored to students' individual needs, the personal assistance of the advisor or chairperson is critical. Rugg and Norris (1975) found that students primarily wanted respect, structure, and guidance, with faculty members providing goals, constructive criticism, and rewards for work well done. Students valued gains in research productivity and expertise in research methods. Mugler (1974) discovered that student satisfaction was linked to their being informed and to their being part of the decision-making process.

The needs of the adult learner do not seem to differ from the needs of graduate students. In the adult learning literature, Dubin (1972) felt that the mature students need guidance and direction even though they have prior

experience and education. Glass and Harshburger (1974) emphasized the need for feedback by middle-aged students because of their experiences with feedback from employers. Challis (1976) pointed out that the mature student feels socially equal with teachers and is less likely to be intimidated by authority. Knowles (1974) believed that adults are not prepared for self-directed learning. They must be taught new learning skills.

Harvey (1972) summarized the literature, stating that faculty members need to regard graduate students as "junior colleagues rather than students or hired help" (p. 64). He stated: "Maximum guidance for the student in the choice of his topic and the design of his research should be afforded by the dissertation advisor. At the same time, the student's right to choose his own topic and conduct his own research in his own fashion should not be threatened" (p. 65).

Developmental dilemmas. Developmental dilemmas appear to be part of student-faculty interaction.

Trivett (1977) recognizes the authority of the professor in graduate education, but emphasizes that this situation does not call for "infantile submission" on the part of students, but for a readiness to provide personal guidance and assistance on the part of teachers. Glass and Glass

(1968) refer to the "benevolent paternalism" of many graduate schools. Taylor (1975) writes of the ambivalence of graduate students who are caught between childhood and adulthood and must delay many adult choices because of graduate school involvements. Altbach (1970) also draws attention to the incongruity of being an adult and being treated as a child who has little or no personal power. Hartnett and Katz (1977) mention the stress associated with this ambiguous role. They mention the common assumption of prolonged adolescence as the developmental stage graduate students are caught in.

History professor Loewenberg (1969) sees the emotional issues of graduate education as arising from unresolved transference issues on the part of both the faculty and students. He observes that "for any student who has been an independent adult on his own, a return to graduate school most certainly represents an emotional regression" (p. 613). Such emotional regression is mentioned by the individuals in Macrorie's (1964) essay. Loewenberg believes that faculty members must recognize their own part in the transference process and their investment in perpetuating faculty dominance and student "infantilization."

The assumption that graduate students are caught in a child or adolescent relationship with their faculties and

the knowledge that faculty members have extensive power over academic progress are the keys to the developmental dilemmas they face. It appears that individual development needs are out of phase with the developmental demands made by many academic environments.

Learning styles. In addition to developmental dilemmas, certain researchers recognize the influence of differences in interests, learning styles, cognitive styles, and patterns of interaction between students and faculty members. Sorenson and Kagan (1967) suggest a system of selection which would match students and faculty members on the bases of personality, expectations, student independence/dependence, faculty nurturance/distance, epistemological preference, and research orientation. Gregg (1972) considers student-faculty collegiality the best index of academic satisfaction. In Individuality in Learning, Messick (1976) discusses individual differences in cognitive styles and creative styles, finding that most of the research in this area has been limited to elementary and high school education. He believes that different learning styles require different teaching styles. Tucker (1964) suggested that students be assigned to professors with compatible personal values, interests, and objectives. He found that faculty members differ greatly over the objectives

of graduate education and the criteria for judging graduate work.

Recommendations. Student-faculty relationships appear to be a critical determinant of success or failure in graduate education. The needs, developmental dilemmas, and learning-style differences of students need additional investigation. These issues certainly underlie the emotional and psychological stresses of faculty-student relations felt by graduate students. No work has been done on similar issues for faculty members. Much more study of experiences and processes of students and teachers in the educational environment is needed. Adult learning is different than childhood learning. It involves two adults committed to the learning process, one as the teacher and one as the student. It is obvious that students want and need personal interest, guidance, and support from faculty members; at the same time, they have adult learning needs. Bringing these elements together in a satisfying graduate educational experience is a large task, about which we know little.

Summary

The purpose of this literature review is to examine the research concerning adult development and graduate education. An initial literature review indicated that little research had been done in adult development and graduate education. Additional library search indicated a significant lack of an empirical developmental orientation for graduate students. In fact, the assumption that graduate students are in a state of prolonged adolescence, which is the primary developmental orientation in the literature, does not have empirical support. It is clear that graduate education requires an understanding of students based on developmental research. Thus, extensive research into needs of students relative to their developmental processes is in order. In addition, research concerning student experiences in graduate studies should be carried out.

In researching the literature, five major areas were explored as primary areas of critical educational involvements. Each of these areas provides fruitful grounds for future research. Awareness of personal dynamics focuses attention on the importance of graduate education as a time of personal growth and exploration. Educational planning

and implementation require an understanding of the complimentary dynamics of adult learning and adult life experiences. The whole area of developmental processes in relationship to graduate education is in need of extensive research. To meet students' needs, educators will have to evaluate programs and teaching methods in order to create effective learning environments.

Crisis events pertained to finances and personal problems. These problems have been addressed in previous research. However, the emphasis in that research was institutional. Additional research to examine these crisis events from the students' perspectives is required. Understanding these crisis events would make it possible to build support systems that would anticipate and deal with pressing issues. I believe that crisis prevention and intervention would increase program retention rates. Adults have all the problems of adult living; graduate students have the additional problems generated by the stresses of graduate education. Crisis intervention and support are integral to a serious commitment to student retention and learning.

Existential questions appear to be important to some graduate students. Graduate schools traditionally have paid little attention to these concerns. This neglect is

related to the assumption that scholarship requires a separation from existential concerns unless one is a theologian or a philosopher. I believe that this assumption is inappropriate. Little research has been done in this area. I believe it is appropriate for there to be recognition, sensitivity and awareness in graduate education of these concerns. The relationship of existential questions to creativity and the personal meaning of scholarship requires exploration.

Examination of students' experiences of the dissertation process emerged as an area of additional investigation. The previous research focused on the institutional demands and structures required of dissertations, and on the end results, the dissertations themselves. Little has been done to look at the student as s/he does the research and writes the dissertation. An understanding of the student process involved in the dissertation would aid students in planning, working through and completing the dissertation. Such an understanding would also aid in effective program planning and faculty advisement. Attention can be paid to effective utilization of resources, time involvements and faculty roles. A greater understanding of the students' experiences of the dissertation may give us insights that would help with reducing dissertation time and

would aid in the seemingly nebulous problems concerning the ABDs (All-But-Dissertation students).

Although the importance of student-faculty relationships has been documented in the literature, the dynamics have not been studied. This study would provide greater understanding of the problems unique to learning situations which include an adult as teacher (having personally significant developmental needs and patterns) and an adult as student (also having personally significant developmental needs and patterns). Messick (1976) provides useful directions for further research. In noting individual differences in cognitive and creative styles, he lists the following as possible research areas: differences in personality, cognitive styles, masculine and feminine modes of functioning, cultural impacts, creativity and talent, environmental influences and the primacy of personal style.

In summary, the neglect of developmental thinking in connection with graduate education points to major areas for future research. The lack of such research contrasts sharply with the extensive research that ties child development to early education. Research is needed to delineate the patterns of adult learners. We must remember that graduate students are more than grown-up children. A better understanding of the graduate education experience

would provide information about retention plans, student-faculty relationships and the student's perception of the worth and value of graduate education for continuing growth and development. We must discover more about how it is that students integrate their educational experiences into their patterns of personal growth and development. Understanding graduate education in this light will aid our understanding of all the areas of higher education.

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